



COUNTY OF LOS ANGELES • DEPARTMENT OF HEALTH SERVICES



313 NORTH FIGUEROA STREET • LOS ANGELES, CALIFORNIA 90012

SFUND RECORDS CTR

88133613
2166-04192

Reply refer to:
2815 South Grand Avenue, Room 807
Los Angeles, CA 90007
(213) 744

SFUND RECORDS CTR
2166-04192

May 30, 1990

Gregory Cannoy, Personnel & Industrial Relations
ITT Aerospace Controls
1200 S. Flower Street
Burbank, CA 91502

Dear Mr. Cannoy:

REPORT TITLED SUMMARY OF ASBESTOS AND RESIDUE SAMPLING OF
BUILDING 1, 2, AND 3 DATED MARCH 1990

Please provide to this office by June 10, 1990 a detailed written evaluation/explanation from your consulting laboratory pertaining to the high detection limits, 490 mg/kg, for the PCB (8080) analysis and for the total petroleum hydrocarbon (TPH) (418.1) analysis where results indicated concentrations over 1,000,000 mg/kg. This information is needed to complete the review of the above referenced document.

If you have any questions, please feel free to call Philip v. Kani at (213) 744-5312 or (213) 744-3223.

Very truly yours,

William Jones, M.S., Chief
Investigative Section
Hazardous Materials Control Program

WJ:PK052390

cc: ✓ Elizabeth Lafferty, Regional Water Quality Control Board
Steve Lavinger, State Department of Health Services Reg. 3
Theresa Holcomb, ITT

TELETYPE

AM00001



ITT Fluid Technology Corporation

ITT Aerospace Controls

1200 South Flower Street
Burbank, CA 91502
Telephone (818) 842-6131
Telex 358454

June 9, 1990

William Jones, M.S., Chief
Investigative Section, Hazardous Materials Control Program
County of Los Angeles
Department of Health Services
313 North Figueroa Street
Los Angeles, California 90012

Dear Mr. Jones:

REPORT TITLED SUMMARY OF ASBESTOS AND RESIDUE SAMPLING OF
BUILDINGS 1, 2, AND 3, DATED MARCH 1990.

This letter is in response to your correspondence of May
30, 1990 pertaining to the high detection limits for PCB
analysis and for the total petroleum hydrocarbons analysis
where results indicated concentrations over 1,000,000
mg/kg.

As per your request, attached please find a detailed
written evaluation/explanation from our consulting
laboratory pertaining to this issue. You will find written
documentation from both the analytical lab supervisor and
our Weston project manager/geologist.

If you have any questions please feel free to contact me at
(818) 953-2119, or Sue Kraemer at (818) 596-6900.

Very Truly Yours,
ITT Aerospace Controls

Teresa P. Holcomb
Safety & Environmental Administrator

cc: Elizabeth Lafferty & David Bacharowski, RWQCB
Steve Lavinger, State DOHS
Philip Kani, County DOHS
Sue Kraemer, Weston



ROY F. WESTON, INC.
6400 CANOGA AVENUE
SUITE 100
WOODLAND HILLS, CA 91367
(818) 586-6800

8 June 1990

Ms. Teresa Holcomb
ITT Aerospace Controls
1200 South Flower Street
Burbank, CA 91502

Work Order No. 2588-08-05

Dear Teresa:

Attached is the letter prepared for you by Steve Wesson from our Analytical Division which addresses several questions you had regarding reported results from the laboratory for samples collected at the site.

The first concern was over the reported values of total petroleum hydrocarbon (TPH) in the 1,000,000 ppm range. These samples were analyzed using EPA Method 418.1 for TPH. Using the EPA methods for samples containing elevated levels of target or other chemical components are often problematic. These analytical methods are designed to detect trace or low level concentrations that are necessary to meet required action levels in order to protect the environment.

The estimated range of accuracy of the 418.1 method is 0 to 4,000 ppm. Whereas the samples analyzed contained a high percentage of TPH and cannot be properly analyzed for true concentration using this EPA method. Steve suggests a gravimetric method which would detect the total oil and grease in the sample. If the concentration need to be verified, an assay of the sample may be most appropriate. However, the results have identified the material as having elevated levels of TPH and will require special handling for disposal.

The second concern discussed are samples which had high detection limits for polychlorinated biphenyls (PCBs). As Steve has explained several factors may be responsible for these detection limits. The electron capture detector used in the PCB analysis detects the chlorine in the PCBs. In several cases, interferences were caused by the presence of chlorinated solvents at elevated levels in samples being screened for PCB, specifically trichloroethene (TCE) and dichloroethene (DCE). Because of the additional chlorine interferences, each sample would need to be diluted and result in higher detection limit.

8 June 1990

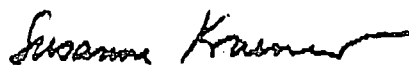
The samples which contained the extremely elevated levels of TPH also had high detection levels for PCBs. These samples required extensive clean-up procedures and large dilutions which increased the detection limits. This preliminary sampling has indicated that alternative methods will need to be explored for PCB analysis. We are presently discussing with the lab potential alternatives for PCB detection methods and will perform tests samples before proposing any further sampling.

As you know, these samples were collected as part of a preliminary screening of Buildings 1, 2, and 3 in order to identify potential compounds and to assess the analysis plan. The analytical methods will be assessed for appropriateness and as we have discussed in this letter alternative methods are being reviewed to improve detection limits for PCB analysis prior to any further sampling.

If you have any other question regarding the laboratory data, please do not hesitate to call me or the Director of the Lionville lab, Mike Taylor at 215- 524-7360.

Sincerely,

Roy F. WESTON, INC.



Susanne Kraemer, R.G.
Project Manager

SK/mtf

cc: M. Valentine, de maximus
S. Warner, WESTON



208 WELSH POOL ROAD
PICKERING CREEK INDUSTRIAL PARK
LIONVILLE, PA 19353
PHONE: (215) 624-7350
TELEX: 83-5348

5 June 1990

Ms. Teresa Holcomb
ITT Aerospace Controls
1200 South Flowers Street
Burbank, CA 91502

Dear Ms. Holcomb:

In December 1989 and January 1990 WESTON Analytics performed analysis of soil/solid samples for PCB's and total petroleum hydrocarbons from one of your sites. The County of Los Angeles Department of Health Services has requested information on methodologies and results on some of those samples. These issues and our responses are summarized below:

QUESTION: What are total petroleum hydrocarbon (TPH) results greater than 1,000,000 ppm?

ANSWER: The method used, EPA Method 418.1 modified for soils/solids by use of soxhlet extract, followed by IR spectrophotometry is not appropriate for samples containing very high levels of hydrocarbons. This method is normally applied to the measurement of PPM levels of TPH. The samples in questions (solid materials, dark, oily - much like asphalt) required a 5000 fold dilution of the extract prior to IR analysis, due to the levels of TPH in the extracts. Since the method is calibrated with three pure compounds isooctane, hexadecane and chlorobenzene, it is also possible that differences in the IR response factor between the standard compounds and those generally higher molecular weight materials in the samples give rise to the apparent discrepancy in the reported results. All calculations were checked and all results were verified.

An alternative method i.e., gravimetric measurement, is more appropriate for sample containing high percentage levels of TPH.

WESTON

Ms. Teresa Holcomb
ITT Aerospace Controls

5 June 1990
Page 2

QUESTION: Why are PCB detection limits "high" for some solid samples?

ANSWER: Despite the application of acid and sulfur cleanups, extracts from the samples in question contained high levels of interferences, from two sources: 1) chlorinated solvents and 2) weathered (oxidized) petroleum hydrocarbons. Relatively high levels of chlorinated hydrocarbon (TCE,DCE) is evident in the volatiles analyses of several of the solid samples. Regarding the interference from petroleum derived hydrocarbons, while it is true that unweathered materials eg., mineral oil do not interfere with this analysis (as noted in SW-846), weathered, oxidized products of petroleum products do cause the electron capture detector to respond. These extracts required large dilutions prior to analysis due to the presence of these interferences.

If you require further information, please call me at 215-524-7360.

Very truly yours,

ROY F. WESTON, INC.

Steve D. Weston

Steve Weston
Analytical Lab Supervisor
Analytics Division

SW/gjk